REMARKS

Several informalities of a minor nature have been corrected. In addition, Claims 2 and 5 have amended to add further language as explained below. Their reconsideration along with remaining Claims is respectfully requested in view of the following remarks.

Claims 1, 4 and 5 have been rejected under 35 USC 103 (a) as being unpatentable over Baran in view of Watters et al.

Baran sets forth

a header wherein "[T]the upstream polling unit appends header information on the cell packets and converts them into standard SONET ATM protocol packets." See Abstract,

and his sixth embodiment states there is "a device to append headers to the fast packets in a form consistent with and compatible with ATM SONET standards",

and that there is implicit addressing involved, "[S] since this polling device implicitly knows who is transmitting at any time it is unnecessary for the cordless telephone 38 assign address header bits on their upstream packets. This information is already known to the Upstream Polling Controller 56 which then appends the correct header for further transmission, upstream."

Thus Baran uses standard SONET ATM protocol packet headers to direct upstream communications to the ultimate destination, while relying

on the fact that downstream communications already have reached the termination within the cordless device. The function of standards conversion is thus limited to that of appending headers to convert them into standard SONET ATM protocol packets, which ~~while~~ is adequate to address the forwarding through an existing ATM SONET environment. Accordingly, Baran fails to describe transparent bi-directional translation of audio/video protocols into Internet standard protocols, as set forth in Claims 1, 4 and 5. Furthermore the headers of Baran are not in the environment of the cellphone, but the environment of a base station, i.e., the upstream unit. Nor, to one skilled in the art, are SONET protocol packets considered as streaming protocols such as TCP, HTTP or RTSP, with retransmission, flow control, status, etc, as in Applicant's Claims 1, 4 and 5.

Note that the Applicant requires a state machine logic array approach to translate audio/video protocols bi-directionally into Internet standard protocols.

Unlike ATM SONET packet conversion, audio/video protocols multiplex variable amounts of compressed media data into variable length frames which include control data on status of the content being sent. In addition, the Internet communications technology includes protocol requirements for retransmission, ordering, and flow control necessary for interoperable communictions with arbitrary host computers on the Internet. The state machine logic array complexity to address this is the barrier to traditional

state machine implementation, which is why large microprocessors are used to run programs that currently perform this function at similar or greater complexity. But such devices require many additional clock cycles, to fetch, decode, and execute instructions, fetch and store support data, as well as many other parasitic functions apart from the protocol operations. Yet power in the form of logic state transitions is limited in portable devices by supply and in telecommunications by device heating. By reducing the number of state transitions to analyze protocol headers and perform the required operations of the Internet streaming protocols, Applicant achieves surprising results.

Consumer device CPU's exist that handle compressed video with low power. On the other hand, Applicant's Claims recite a method that allows direct attachment of the resulting application data from the Internet streaming protocols to the aforementioned consumer device CPU's. The power saved from fewer logic state transitions allows longer operation of the consumer device with no dimishment of quality.

Watters et al add nothing in this regard.

Watters et al is primarily concerned with finding the location of cellphones by a combination of differential GPS (DGPS) and round trip signal propogation time to the cellphone.

While Watters et al describes a cellphone environment containing a DSP as Applicant, his DSP performs no significant part in analysis, in that they state :

"Radio interface 510 converts that signal into an intermediate frequency (IF) signal that is compatible with the DSP 512, and forwards the signal to the DSP 512. The DSP 512 demodulates the signal into a data stream and forwards that data stream to the central processor 515."

Thus, in Watters et al, the use of the Internet is as a way to link DGPS (differential GPS) servers to share GPS observations, and in no way has the Internet in the environment of the cellphone, but just in the base station.

Thus since Applicant is not concerned with reconciling GPS data with DGPS servers, nor measuring the distance inferred by round trip time to cellphones, and moreover, does recite a method for transparent bi-directional translation of audio/video protocols into Internet standard protocols, Applicant's Claim 1, 4 and 5 are clearly allowable, and such allowance is respectfully requested.

In other words , Applicant contends that it is not obvious to one of ordinary skill that in the environment of a cellphone that a direct interface to the high level embedded data is possible or desirable, i.e., interfacing the embedded data from the variable length Internet streaming protocols of the cellphone's DSP output. For example , in Baran

. note that the cordless telephone terminal device generates fast packets, more precisely called cell relay packets, as they are short, and all of the same length which is said to allow both efficient low level transmission and creates a data stream readily converted into standard SONET format. In other words, the cordless telephone data stream, (unlike in Applicant's Claimed method which decodes the entire Internet protocol), uses an intermediate form that may be finally translated by a upstream unit in the environment of the base station.

Claims 2, 3 and 5 have been rejected under 35 USC 103 (a) as being unpatentable over Baran in view of Watters et al in further view of Dietz et al.

Barran and Watters et al have been distinguished above and such arguments are incorporated herein. Dietz et al adds nothing.

Dietz et al, is primarily concerned with examining real-time packet flows of a prior specified pattern, as a way to selectively monitor traffic. Matching patterns and states of protocols as identified prior to operation by a protocol description language (PDL), which is analyzed by a compiler and optimizer to generate two sets of data structures for extraction and operation, which are then used in a mechanism (PAR engine) to identify packets with a flow signature. The environment is a passive attachment to a computer network undergoing monitoring, so is not bidirectional but unidirectional. Thus, Deitz et al fails to describe a means to identify the

validity of each protocol layer within, thus allowing a false match of a packet as valid part of flow.

Furthermore, the patentees fais to describe the operations necessary for a stream protocol to join ordered contents togefther as needed to communicate audio/video a ordered sequences of packet contents, or for that matter, any protocol specific impementation operations to effect the result of the protocol in the packets.

On the other hand, Applicant is <u>not</u> concerned with the signature assignment of flows, or of retaining the state information of all protocols that occur at any layer. Applicant does <u>not</u> match arbitrary packet information, nor is concerned with maintaing a database of known flows. Applicant <u>does</u> optimize the power and speed of standard Internet protocols, such that audio/video communications can be performed without loss of battery life and generation of heat in a portable device. Hence the Applicant's Claims are clearly allowable over these references.

That is to say, Applicant teaches a method that communicates low-level packets as <u>Baran</u> describes them, through the existing cellphone DSP and RF, while <u>bi-directionally</u> communicating the embedded high level audio/video information with cellphone processor(s) for display(s) and camera(s). Since Applicant's method teaches that the logic states of the low-level packet (formatted headers) never transit her logic array, they never consume power of a processor to process them. Also, since the high

level audio/video information varies in size due to compression effects, and because actual end-to-end network tranport rates, retransmission, and congestion effects, there is no one-to-one correspondence of audio/video information to low level packet ~~is~~ as in Baran.

RESPECTFULLY SUBMITTED,

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